

14 January 2015  
Revised 22 January 2015

Christos Tsiamis  
Project Manager  
New York Remediation Branch  
USEPA, Region 2  
290 Broadway, 20<sup>th</sup> Floor  
New York, NY 10007

**Re: 363 Bond Street Supplemental Remedial Measures Plan**  
**363 Bond Street**  
**Brooklyn, New York**  
**Langan Project No. 100287501**

Dear Mr. Tsiamis:

This Supplemental Remedial Measures Plan has been developed for the Bond Street Redevelopment project, located at 363 Bond Street and 388 Carroll Street (Block 452, Lots 1 and 15) in the Carroll Gardens neighborhood of Brooklyn, New York (the Site). A Site location figure is provided as Figure 1. The following document is provided to address comments by the United States Environmental Protection Agency (USEPA) to the 3 December 2014 363 Bond Street Supplemental Remedial Investigation Analytical Results Package. These comments identified that in addition to the excavation proposed in the November 2014 Draft Remedial Action Work Plan and the NYSDEC approved Interim Remedial Measures Work Plan (IRMWP) Addendum dated 12 November 2014, additional excavation to address impacts that were identified as part of the Supplemental Remedial Investigation is required. These supplemental remedial measures will be completed in addition to the remedial measures that were identified in the Interim Remedial Measures (IRM) Work Plan that was approved by the New York State Department of Environmental Conservation (NYSDEC) on 13 November 2014.

The remedial measures proposed in both the IRMWP and this Supplemental Remedial Measures Plan were developed based on the findings of several environmental investigations completed at the site to date. These investigation activities included completion of 63 soil borings and test pits and collection of 139 discrete soil samples to identify any potential releases and to characterize the site, and installation and sampling of sixteen groundwater monitoring wells to assess site wide groundwater conditions.

The results of these investigations were detailed in the May 2014 Draft Remedial Investigation Report. Laboratory analytical results of all investigations completed at the site are summarized on Figure 2. Based on these results and the visual observations of the soil conditions indicating the presence of non-aqueous phase liquids (NAPL), remedial measures are proposed as

detailed in the following sections. These measures will be completed in addition to the measures identified in the NYSDEC approved IRM Workplan.

## **SCOPE OF WORK**

### Boring Location SB-3

As identified and discussed in further detail in the 363 Bond Street Supplemental Remedial Investigation Analytical Results Package this area was expanded to include the boring locations EPA-13 and EPA-14 to address elevated polycyclic aromatic hydrocarbons (PAHs) that were detected in the two borings. The extents of the excavation may be extended in the field to include areas of elevated PID readings and visual impacts. All impacts will be adequately addressed by the measures included in the NYSDEC approved Interim Remedial Measures Work Plan (IRMWP).

### Boring Locations EPA-9, -10 and -11

Laboratory analytical results from these borings identified elevated concentrations of PAHs and metals. Additionally, elevated concentrations of naphthalene were also detected in boring location EPA-9. In order to address these impacts a fifteen-foot by fifteen-foot excavation centered on the boring location and advanced two-feet below the groundwater table (approximately 8 to 10 feet below current grades) will be completed to remove these impacts. The extents of these excavations as well as those identified above are shown on the attached Figure 2.

### AOC-6

Prior to issuing the Remedial Action Work Plan for the 363 Bond St site to the public comment period, the NYSDEC requested that an area surrounding LSV-20 be excavated to address an anomalously high concentration in soil vapor. This excavation area (AOC-6) has been extended to the west to also remove the shallow impacts of arsenic that were identified in the EPA-12 boring. The excavation area will be approximately 15-foot by 30-foot and will be advanced two-feet below the groundwater table (approximately 8 to 10 feet below current grades).

Post excavation soil sampling for documentation purposes will be completed in accordance with the approved IRMWP Addendum and NYSDEC DER-10 requirements. In addition to the post excavation sampling, the excavation activities will also be photo documented. The results and photographs will be summarized and provided in the Final Engineering Report that will be submitted to the NYSDEC and USEPA and will document the remediation of the site.

All excavated material will be sampled for waste characterization prior to off-site disposal. Thereafter, the excavation will be immediately backfilled and compacted to the required development grade depth with imported backfill which will meet the requirements of 6 NYCRR 375-6.7(d) and 6 NYCRR 376-5.4(e), covered by the engineered composite site cap.

## CONCLUSIONS

Based on the results of previous investigations and comments from the USEPA, the above identified excavation areas in addition to the previously identified AOCs, approved by the NYSDEC, will be completed and will adequately remediate soil impacts at the site.

All excavated material will be sampled for waste characterization prior to off-site disposal. Thereafter, the excavation would be backfilled, immediately upon reaching the extents of the excavation area and compacted to the required development grade depth with imported backfill which will meet the requirements of 6 NYCRR 375-6.7(d) and 6 NYCRR 376-5.4(e), covered by the engineering cap. The above remedial measures will commence on the week of 19 May 2014. Upon approval of this work plan, this excavation work plan will be incorporated in the NYSDEC approved IRM Work Plan.

Please call with any questions.

Sincerely,  
**Langan Engineering, Environmental, Surveying  
and Landscape Architecture, D.P.C.**



Chris McMahon  
Project Geologist



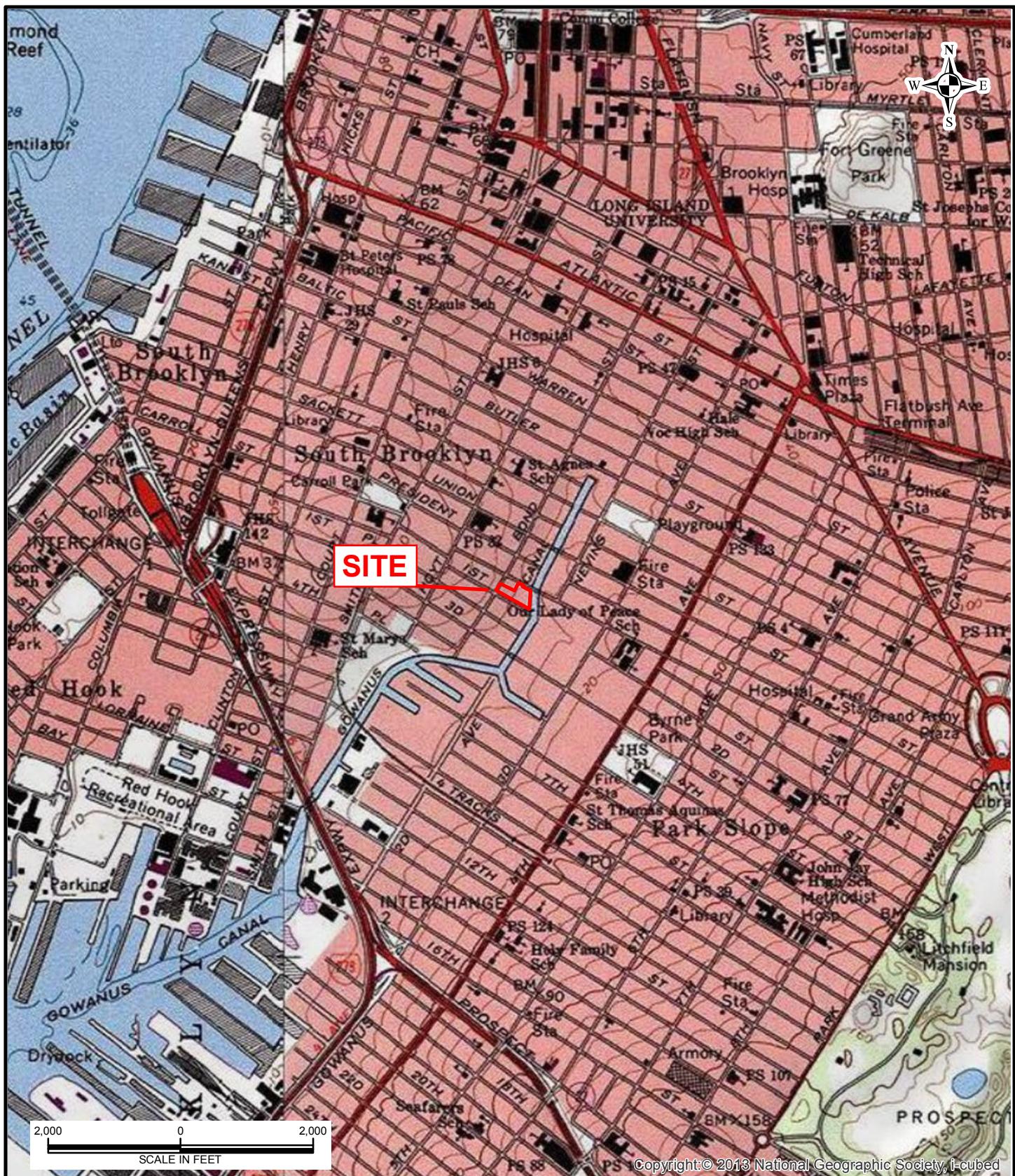
Steven A. Ciambuschini, P.G., L.E.P.  
Principal / Vice President

CM:SAC:kn

Enclosure(s): Figures 1 and 2

cc: Brian Carr - USEPA  
Mark Green, Frank List, Scott Avram, Pam Horn – Lightstone  
Satyajit Vaidya, Amanda Forsburg, Christine Madsen – Langan

## **FIGURES**



Project	Drawing Title	Project No.	Figure
<b>LANGAN</b> River Drive Center 1, 619 River Drive Elmwood Park, NJ 07407-1338 T: 201.794.6900 F: 201.794.0366 www.langan.com Langan Engineering & Environmental Services, Inc. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan International LLC Collectively known as Langan <b>N.J. CERTIFICATE OF AUTHORIZATION No. 24GA27996400</b>	<b>PROPOSED BOND STREET DEVELOPMENT</b> <b>BLOCK No. 452, LOT Nos. 1 &amp; 15</b> <b>BROOKLYN</b> <b>KINGS COUNTY</b> <b>NEW YORK</b> <b>SITE LOCATION MAP</b>	Drawing Title <b>SITE LOCATION MAP</b> Project No. <b>100287501</b> Date <b>1/6/2015</b> Scale <b>1"=2000'</b> Drawn By <b>amf</b> Last Revised <b>1/6/2015</b>	Figure <b>1</b>

